



July 18, 2005

BY ELECTRONIC FILING

Ms. Marlene M. Dortch, Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: Notification of Oral Ex Parte, *In re Petition of: Remington Arms Company, Inc. For Waiver of Sections 15.245, 15.247(b) and 15.247(e) of the Rule sand Regulations*, ET Docket No. 05- 183

Dear Ms. Dortch:

On Friday, July 15, 2005, the undersigned, together with Asher Gendelman, Director, Law Enforcement Technologies Division, Remington Arms Company, Inc. and Charles Jackson, Jackson Telecom Consulting, LLC on behalf Remington Arms Company, Inc. met with Julius Knapp, John Reed, Bruce Romano, Alan Scrimme and Karen Rackley of the Office of Engineering and Technology to respond to questions raised in the comments to this proceeding. Matters discussed were the Comments already submitted in this docket and the following response to the question regarding why the Remington Eyeball R1 was developed as an analog, rather than a digital device.

The Remington Eyeball R1 was designed as an analog device, specified by the Israeli Ministry of Defense and developed by former Israeli Intelligence Officers who considered both analog and digital solutions. A digital solution had two shortcomings. First, a digital design requires more power — specifically the power required for an analog/digital conversion chip and a video compression chip together with the supporting circuitry. Increased power consumption implies either (1) reduced battery life or (2) increased battery size in the remote unit.

Because the battery life of the design was based on the user's needs, the appropriate response to increased power consumption would be to increase battery size. Keeping battery life constant would require an 80 to 100% increase in battery size. Such increased battery size would

enlarge the device — including enlarging all the structure, motors, gears, etc. Such enlargement and increased weight would, in turn, require considerably increased mechanical cushioning and enclosure. The cushioning requirements grow non-linearly — faster than the increase in weight or volume. Thus, the consequence of an increase in power consumption would be a substantial increase in the weight and volume of the unit.

A second shortcoming of a digital design is the cliff effect. A reasonable digital design — one with constant bit-rate video coding and a conventional coding/modulation system — would be subject to the cliff effect. That is, as the signal got weaker or interference got stronger, the picture quality would remain unimpaired or only slightly impaired until either it suddenly failed completely or delivered staccato like delayed images that could easily confuse the operator or, worse, mislead the operator to believe that a picture taken several to many seconds ago represented the current situation. In contrast, analog signals fail gracefully — with quality degradations warning the user that signal strength is beginning to decline below usable levels. Such user feedback is judged to provide significant value in the interactive environment envisioned for the Eyeball R1.

The designers were aware of these issues with a digital design and chose analog as the safer route under the operational circumstances it is anticipated for the Eyeball R1. Consequently, an analog design is the only route to getting this product to the market in the short term.

Given the design differences of a digital device, it was estimated that a digital design would also increase the delivered cost by a factor of as much as 50%, an important consideration for police and sheriff departments on limited budgets. Such an increase in cost could deny the device to as many as 40% of the law enforcement organizations, particularly those in more rural areas with tighter budgets.

We note that, were the system designed to use digital modulation as permitted by Section 247 of Part 15, it would have essentially the same interference characteristics as the analog system requested under the waiver. That is, it would generate a nominal one-watt signal a few MHz wide in the 2.4 GHz band.

Concerns about interference should also be alleviated by the limited use expected for these units. The units are battery powered with a battery lifetime of roughly two hours. Remington has agreed to sell these units only to public safety agencies and licensed private security organizations. The units will be used in situations in which it is hazardous for a public safety officer to directly observe a location. Such situations occur a few times a month in medium-sized jurisdictions. These are not devices that will be used 24/7 or on every street corner. Rather they are specialized devices the use of which will be limited in time and space. The discussion was joined on telephone by two law enforcement officers, Michael Thieman, Deputy Sheriff of Orange County, Florida Sheriff's office and Chris Cotillo of the Prince

Georges County Police Department, both of whom emphasized how important a tool the Remington Eyeball R1 will be to law enforcement officers.

Respectfully submitted,



Gregg F. Skall
Counsel to Remington Arms Company, Inc.

cc: Julius Knapp (email)
John Reed
Bruce Romano
John Reed
Alan Scrim
Karen Rackley